

**IN THE CLAIMS:**

- 1 1. (Currently Amended) A method of performing an audio conference of multiple  
2 attendees, including the steps of
- 3 (A) receiving input samples of PCM information from each attendee in the  
4 conference;
- 5 (B) calculating the energy of each sample for each attendee of the conference;
- 6 (C) selecting a predetermined number of samples that exhibit the highest en-  
7 ergy;
- 8 (D) generating a histogram to determine one or more noise peaks;
- 9 (E) selecting one of said noise peaks as a noise floor;
- 10 (F) ~~muting-eliminating from the conference~~ incoming samples that ~~exceed-fall~~  
11 below said noise floor; and
- 12 (G) ~~summing a predetermined number of non-muted samples whose energies~~  
13 ~~are the largest to produce a conference output signal~~selecting for inclusion in said confer-  
14 ence a predetermined number of the remaining samples whose energies are the largest,  
15 and summing a predetermined number of the remaining samples whose energies are the  
16 largest to produce an output signal.
- 1 2. (Original) A method of performing an audio conference of multiple attendees,  
2 including the steps of
- 3 (A) receiving the input samples of PCM information from each attendee in the  
4 conference;
- 5 (B) calculating the energy of each sample for each attendee of the conference;
- 6 (C) suppressing any echo out of said conference output signal by aggregating  
7 the energies calculated from each sample during the predetermined time period; and
- 8 (1) populating a matrix with the energy aggregates that are calculated;
- 9 (2) solving normal equations for said matrix to produce results;
- 10 (3) evaluating said results ;

- 11                   (3)     applying a moving average to said results across the time dimen-  
12                   sion;  
13                   (4)     selecting peaks and a predetermined time lag that represent echo in  
14     said energies;  
15                   (5)     evaluating incoming speech samples and finding those having an  
16                   energy value is less than the predetermined peak energy at that predeter-  
17                   mined time lag;  
18                   (6)     masking any such samples whose energies are less than or equal to  
19                   the predetermined peak, thus suppressing the echo in said sample;  
20           (D)     selecting a predetermined number of samples that exhibit the highest en-  
21     ergy;  
22           (E)     summing these energies to produce a conference output signal; and  
23           (F)     for each attendee of the conference, subtracting any speech attributable to  
24     that attendee from his own returned conference output signal.

1     3.     (Original) A method of performing an audio conference of multiple attendees,  
2     including the steps of:

- 3           (A)     receiving input samples of PCM information from each attendee in a con-  
4     ference;  
5           (B)     for each attendee of the conference, detecting dual tone multi-frequency  
6     tones employing a detector to identify a row tone and a column tone;  
7           (C)     adjusting a filter to apply a coefficient that multiplies the signal by a pre-  
8     determined amount in order to remove each row tone and each column tone to thereby  
9     remove the DTMF from the signal; and  
10          (D)     sending the signal with the DTMF having been removed to a conferencing  
11     process to be summed with other attendee signals.

1 4. (New) The method as defined in claim 1 comprising the further step of calculat-  
2 ing the energy of the sample using the sum of the squares of the signal over a predeter-  
3 mined time period.

1 5. (New) The method as defined in claim 1 wherein generating said histogram in-  
2 cludes the further step of plotting a total energy level for a predetermined time block to  
3 determine said noise peaks.

1 6. (New) The method as defined in claim 5 comprising the further steps of:  
2 evaluating peaks including ignoring lowest peaks that are close to zero; and  
3 evaluating secondary peaks to find the most occurring energy representation and setting  
4 this as said noise floor.

1 7. (New) The method as defined in claim 6 comprising the further step of applying  
2 a logical relationship to said histogram when there are multiple peaks to determine the  
3 best noise floor including using a relationship between a ratio of the average histogram  
4 value to that of a second peak and determining if said ratio exceeds a predetermined  
5 amount, then the sample is determined to be speech and is above the predetermined noise  
6 floor.

1 8. (New) The method as defined in claim 2 further comprising in said suppressing  
2 step:  
3 generating a synthetic echo envelope using calculated energies of samples; and  
4 using said synthetic echo envelope to determine a delay and gain for an echo sig-  
5 nal to be used in echo suppression.